Application No. 10/662172
Amendment dated October 28, 2005
Reply to Office Action of September 30, 2005

Docket No.: 95756US1

AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS:

1-22. (Canceled)

23. (Currently Amended) A method of processing data from at least two sensor arrays to determine the track of a target, each sensor array having at least two sensors, the sensor arrays being arranged non-parallel to each other, the method comprising:

computing a hypothesis reference track relative to a primary sensor array of the at least two sensor arrays;

computing a hypothesis reference track relative to a second sensor array of the at least two sensor arrays;

calculating an associated delay curve in a primary correlogram for the primary sensor array;

calculating an associated delay curve in a secondary correlogram for a secondary array;

accumulating data for the reference track by integrating a series of pixel values along the appropriate delay curve in the primary and secondary correlograms and adding integrands resulting from said integrating in the primary and secondary correlograms;

storing the accumulated pixel values in composite Hough space; and

thresholding the accumulated pixel values to detect the track.

24. (Previously presented) A method according to claim 23, wherein said sensor arrays are arranged perpendicular to each other.

25. (Previously presented) A method according to claim 23, wherein said sensors are acoustic sensors.

26. (Previously presented) A method according to claim 23, wherein said sensors are electromagnetic sensors.

27-28. (Cancelled)

29.   (Previously Presented) A method according to claim 23, wherein said applying the composite Hough Transform to the delay curves reduces ambiguity between the track of the target and a mirror track of the target.

30.   (Currently Amended) A method of processing data from at least two pairs of sensors to determine the track of a target, the pairs of sensors including a first pair of sensors and a second pair of sensors, the pairs of sensor arrays being arranged non-parallel with each other, the method comprising:

calculating a delay curve in a primary correlogram for the first pair of sensors;

calculating an associated delay curve in a secondary correlogram for the second pair of sensors;

and combining said delay curves with a composite Hough transform by integrating a series of pixel values along the appropriate delay curve in the each of the primary and secondary correlograms and adding integrands resulting from said integrating in the primary and secondary correlograms.

31.   (Cancelled)

32.   (Currently Amended) A method of processing data from at least two pairs of sensors to determine the track of a target, the pairs of sensors including a first pair of sensors and a second pair of sensors, the pairs of sensor arrays being arranged non-parallel with each other, the method comprising:

computing a hypothesis reference track relative to the first pair of sensors;

computing a hypothesis reference track relative to the second pair of sensors;

calculating an associated delay curve in a primary correlogram for the first pair of sensors;

calculating an associated delay curve in a secondary correlogram for the second pair of sensors;

accumulating data for the reference track by integrating a series of pixel values along the appropriate delay curve in the primary and secondary correlograms <u>and adding integrands resulting from said integrating in the primary and secondary correlograms</u>;

storing the accumulated pixel values in composite Hough space; and

thresholding the accumulated pixel values to detect the track.